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## ABSTRACT

High risk students in higher education are identified as being marginally qualified to enter and persist. These students are handicapped with low high school grades, poor study habits, low aptitude scores and little ambition to meet academic requirements. Although the process of reversing fixed behavioral patterns is most difficult, several research studies have reported success with study skills/remedial treatments. This article reports on research conducted with high risk students by applying a pre-college treatment or conducting special courses during the academic semester. The data indicates that high risk students can improve upon their predicted grade point average when a study skills/remedial treatment is employed. (Author)

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HELPING THE HIGH RISK STUDENT IN HIGHER EDUCATION:

A DESCRIPTION OF RESEARCH STUDIES REPORTING SUCCESS  
UTILIZING STUDY SKILLS/REMEDIAL PROGRAMS

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## A B S T R A C T

High risk students in higher education are identified as being marginally qualified to enter and persist. These students are handicapped with low high school grades, poor study habits, low aptitude scores and little ambition to meet academic requirements. Although the process of reversing fixed behavioral patterns is most difficult, several research studies have reported success with study skills/remedial treatments. This article reports on research conducted with high risk students by applying a pre-college treatment or conducting special courses during the academic semester. The data indicates that high risk students can improve upon their predicted grade point average when a study skills/remedial treatment is employed.

Educators have always been concerned about the plight of the so-called high risk student in higher education. These students are generally not capable of meeting academic requirements due to aptitude, attitudes, personality disorders or motivational factors. A combination of these variables often can be identified as being detrimental to successful scholastic experiences. Concern has been expressed in the form of elitism which would attempt to exclude all those not qualified to do college level work. A humanitarian influence has also been operating to take high risk students and provide special help along the way.

Traditionally a college education has been a prerequisite for socioeconomic mobility and status in society. During the last 20 years, and most particularly during the last 10 years, an egalitarian educational philosophy has become dominant within institutions of higher education. This philosophy is an expression of concern for the individual and the right to equal opportunity.

Institutions attempting to accommodate the high risk student have numerous approaches based upon their resources and commitment. The basic notion is to keep the student in college till graduation. To accomplish this goal the student needs to pass the courses with acceptable grades. In the case of high risk students the predicted grade point average (GPA) is usually below average. This paper will describe some significant research studies that have demonstrated the high risk student can improve upon either the predicted or existing GPA.

To improve upon predicted or achieved GPA there have been experiments conducted applying a study skills/remediation course prior to and during college attendance. These experimental groups have consisted of students who were identified as being a high risk in terms of persistence in college.

#### PRE-COLLEGE TREATMENTS

There are six interesting studies that claim success with the application of a pre-college study skills/remedial course (Egeland, et al., 1970; Christ, 1970; Miller & Stillwagon, 1970; Pepper, 1970; Kling, 1972 and Shaffer, 1973). Egeland, et al., (1970) reported on project Upward Bound. This was a pre-college enrichment program sponsored by the Office of Economic Opportunity for high school students from low-income families. Its purpose was to generate the skills and motivations necessary for college success among students from low-income backgrounds and inadequate secondary school preparation. "A typical Upward Bound program enrolled 75 students who participated in two phases: a summer phase in which the student spent eight weeks in residence on a college campus where he experienced a fairly intensive, full-time educational program, and a second, or follow-up phase, in which he received some additional support (for example, tutoring and counseling) during the following academic year in his own high school" (Egeland, et al., 1970, p. 375). In June, 1967, approximately 6,000 Upward Bound students were graduated from high school, and about 80 percent were admitted to some form of higher education. The Upward Bound rate of enrollment in an institution of higher education was 68 percent compared to 48 percent in a matched non-Upward Bound control sample. No information about persistence was reported.

In 1970, Christ reported on a pre-college summer reading/study skills laboratory that attempted to bridge the reading/study transition from high school to college. Christ's program was offered at Loyola University of Los Angeles for five years prior to his report (Christ, 1970). Christ's program was based on these assumptions:

- 1) Learning begins where the student is.
- 2) Learning how-to-learn can be learned.
- 3) Learning must be meaningful and goal-oriented.
- 4) Learning is a process.
- 5) Learning is not always easy, nor is it always fun.
- 6) Learning can be personal regardless of numbers of students.
- 7) Each student is unique.
- 8) Each student is a fellow human being.
- 9) Students can and do learn by themselves.
- 10) Students do learn from each other.
- 11) Students learn at different rates.
- 12) Students learn in different ways.
- 13) Diagnosis, referral, and follow-up are synonymous with counseling.
- 14) Computerization need not be dehumanizing.
- 15) Individual learning can be economical.

Study laboratories were held three hours a day, five days a week, for four consecutive weeks. Typical group activities included lecture-discussions on learning, study/reading, high school to college adjustment, critical reading, taking notes, outlining and underlining techniques. Christ stated that the reading/study skills course does make a difference, but he did not present any empirical data.

Miller and Stillwagon (1970) reported success with a reading remediation program between high school and college with underachieving students. Their program lasted three weeks. The American College Test (ACT), Edwards Personality Preference Schedule, Missouri College English Placement Test, Nelson-Denny Reading Test, Strong Interest Inventory, and the Wechsler Adult

Intelligence Scale were administered for the purpose of planning an individualized program. The group as a whole had a predicted GPA of 1.5 based on high school grades and ACT scores, but they achieved a GPA of 2.2 in summer school and 2.0 in the fall. Miller and Stillwagon (1970) stated that programs of this sort, that are aimed at the underachiever, must be structured in such a way as to encourage and provide an opportunity for the students to help themselves.

Pepper (1970) reported success with a reading/study skills course using students who would not have been admitted to Wayne State University based upon their Scholastic Aptitude Test (SAT) scores and high school GPA. Students who applied for admission but did not meet admissions criteria were invited to enter an experimental summer quarter program. All students were required to take freshman English, either social science or political science, and a non-credit reading and study skills course. The class work was supplemented by academic advising, vocational and educational counseling, financial aid service, and tutoring. A total of 212 marginal students were enrolled in the summer classes, and 155 later successfully completed four quarters of academic work in their first year. Informal evaluations by students and instructors indicated that the reading and study skills training made a positive contribution to the academic adjustment of these students. The Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) was administered at the beginning of the study skills course, and individual profiles were returned to the students. These profiles served as a basis for discussions of the role of attitudes, motivation and study skills required to be successful in academic work.

Kling (1972) claimed to have made the first empirical evaluation of a summer program of socially disadvantaged incoming freshmen at Rutgers University. A two week summer reading and study program was developed for 61 disadvantaged incoming freshmen; 84 percent were black. In the morning mathematics was taught, and in the afternoon reading skills and study skills were emphasized, supplemented by work on library utilization. The core program was designed to change basic attitudes and approaches toward academic work, particularly reading skills. Success was demonstrated by post test gains on vocabulary, comprehension and reading rate.

Shaffer (1973) reported on an experimental program that selected 89 disadvantaged minority high school graduates to attend a special preparatory program before entering San Fernando Valley State College in the fall semester. This program was conducted on the campus for a period of eight weeks. During this time, the students attended classes and tutoring sessions designed to improve their academic skills and to orient them to the college environment. The 89 students who were selected from those attending the Educational Opportunities Program (EOP) had lower high school grades than the larger EOP group. Only five of the 89 students would ordinarily have qualified for regular admission as freshmen. The Cooperative English Reading Comprehension Test (Form 1C), the Brown-Holtzman Survey of the Study Habits and Attitudes (Form C), the Bennett Test of Mechanical Comprehension (Form BB), the Employee Aptitude Survey, the Visual Speed and Accuracy of Space Visualization Tests, and the Strong Vocational Interest Blank were given and used for general educational guidance and specific assistance. High school grades and SAT scores were also used. Two years later tabulations were made on their college performance (number of semesters they were in attendance



and credits earned). Eighty of the 89 enrolled as freshmen, and 35 were eligible to continue their education after attending for four consecutive semesters. The results indicated that student performance on the Brown-Holtzman SSHA most consistently differentiated between upper and lower criterion groups. The highest correlations obtained in the study, for both males and females, were between SSHA Educational Acceptance scores and the criterion of the total number of college credits earned in the two-year period.

#### TREATMENTS APPLIED WHILE ATTENDING COLLEGE

There are studies that have attempted to improve upon indicated low ability with treatments applied during the course of college work (Shaw, 1955; Ikenberry, 1966; Rickabaugh, 1969; Cartwright, 1970; Cartwright, 1971; Ritter, 1971 and Kaye, 1972). Shaw (1955) reported on an attempt to evaluate the effectiveness of a study skills program at the University of Wyoming from the fall quarter of 1949, through the spring quarter of 1951. A total of 153 students with a mean GPA of C-minus were enrolled in the study skills course (58 percent were on academic probation). After the study skills course their mean GPA was slightly better than an average C grade (an improvement of .56 of a grade point on a 5 point numerical value system). Results from an evaluation questionnaire indicated that 95 percent expressed the opinion that the course was of considerable value to them.

Ikenberry (1966) reported on a training program in reading/study skills with a reduction of the academic credit load for 330 students, selected from the 1964-65 freshman class of West Virginia University. These students had a predicted GPA of 1.99 on a 4.0 scale. Criterion measures

were GPA and withdrawal rate per semester. Students were randomly assigned to four groups: 1) a reading/study skills class with reduced credit load, 2) a reading/study skills class with no reduction in credit load, 3) a reduced load with no special class, and 4) a control group with no special class and no reduction in credit load. At the close of the first semester each of the criterion measures showed a significant difference in favor of those groups taking the reading/study skills course. The group with only the reduced load achieved at a level below the other three groups, and had the highest rate of withdrawals. Significant interaction effects between the special course with reduced credit load and without reduced course load were shown. The Brown-Holtzman SSHA Inventory which was used as a secondary variable was related to achievement according to Ikenberry (1966). Rickabaugh (1969) reported significant improvement on GPA using students on academic probation at the University of Utah by applying a study skills treatment for one semester.

Cartwright (1970, 1971) reported success with a study habits/reading remediation course during college sessions. Cartwright (1970) said the study skills section was extremely important. In 1971, Cartwright reported on a one year required study habits/reading program with students who were reading at the ninth grade level or below as freshmen. At the end of one academic year, gains ranged as high as five years eight months and as low as two months (Cartwright, 1971).

Ritter (1971) conducted a study skills program at the University of Manitoba, Winnipeg emphasizing: 1) listening and taking notes, 2) underlining, 3) skimming, 4) making study sheets in outline form, and 5) taking examinations and writing term papers. This special course was con-

ducted for one academic year with 149 upperclass students with a 2.09 mean GPA. At the conclusion of the special course, the mean GPA was 2.39 (statistically significant at the .01 level of confidence). No controls were used for ability or motivation (those who requested the course were allowed to take it).

Kaye (1972) reported on a required study skills/counseling program for failing college freshmen at the University of Connecticut. Eighteen matched pairs of students for control and experimental groups were randomly selected. They had a mean GPA of 1.3. A letter requiring participation was sent to freshmen assigned to the experimental group. The treatment was applied the second semester. The experimental group was significantly superior to the control group on mean GPA (2.1 compared to 1.4). Kaye (1972) stated the academic system should assume more responsibility for the problem of academic failure by requiring a treatment program geared to the student who fails during the freshman year.

Paulson and Stahmann (1973) reported on the characteristics of high risk students who did graduate without any special treatment given. The so-called high risk alumni of the University of Iowa were characterized as being dominant, enthusiastic, sociable, and they had strong needs to achieve and secure high status. This research was conducted using a questionnaire and Holland's Vocational Preference Inventory. Paulson and Stahmann (1973) said more research is needed to determine the motivational factors involved in college selection by high risk students. They implied that institutions involved with high risk students need to operationally assess the students' behavior and individually work out a program to help

each student acquire the habits and skills that will enable them to succeed.

Through interviews with students having academic problems in the first year of college, Lesnik (1972) found the basic problem to be inefficient study skills or a deficient vocabulary in the discipline being studied. The interviews revealed a wide proliferation of problems ranging from those which directly impinged on study skills (such as inadequate study techniques, scheduling time, word-by-word reading and poor comprehension) to indirect problems such as the college curriculum, college instruction and poor self-esteem. In many cases the direct problem was related to study behavior, but it could not be fully understood apart from the total behavior complex. Motivational factors explaining academic achievement are varied, complex and difficult to understand (Lesnik, 1972). Lesnik (1972) said lack of motivation was expressed in some form of resistance to becoming involved in studies.

In a thoughtful article Heist (1960) stressed the need for variety in the facilities, programs and educational procedures of higher education. In theory there should be institutions that specialize in working with high risk students as well as other varieties of students. The question about the "correctness" of choice of college for entering students should be asked much more frequently said Heist (1960). Richards, et al., (1966) recommended that a wide variety of colleges be established to cater to the needs of particular types of students.

College and university administrators with an open door admission policy should be concentrating on the characteristics of their student popu-

lation, and how best to serve a heterogeneous student body. Programs without professionally qualified instructors in reading and study skills title value. Benz (1970) reported on a reading/study skills program using academically successful students as tutors and found no improvement in the experimental group of low achieving freshmen.

It has been found that the greatest gains academically were produced by students with relatively high ability. These students tend to show greater improvement in more areas than the unsuccessful groups when a study skills/remediation course is applied (Maxwell, 1963 and Lee, 1964). Demonstrating the effectiveness of a special remediation program is less difficult when one uses students with relatively high measured ability.

The research literature dealing with programs for high risk students is limited. However, the literature does indicate that high risk students can be helped through the application of a study skills/remediation program. Programs attempting to help marginal students are expensive and require considerable professional talent. Treatments concentrating on study skills and remedial work in reading have been most successful. It should be recognized that fixed behavioral patterns are difficult to reverse without considerable effort and resources.

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